

AMENDMENTS TO THE DRAWINGS

The attached sheet of drawings includes changes to Fig 3. This sheet, which includes Fig. 3, replaces the original sheet including Fig. 3.

Attachment: Replacement Sheet

REMARKS

Claims 1-6, 8-12, 14-18, 27, 29 and 30 are pending in the application. By this Amendment, claims 1 and 30 are amended. Reconsideration and withdrawal of the rejections in view of the foregoing amendments and the following remarks is respectfully requested.

I. Specification and Drawing Changes

The Office Action objects to the use of reference numeral 303, which appears at page 18, line 21 of the originally filed specification. Applicant attempted to correct this problem in an Amendment filed August 25, 2008. In that Amendment, Applicant requested that a corrected paragraph, using reference numeral 203, instead 303, be added to the application at page 16.

The request for the addition of the replacement paragraph contained a typographical error, as this paragraph originally appeared on page 18, not page 16. To the extent a new paragraph was added to page 16 by virtue of the August 25, 2008 Amendment, Applicant hereby requests that the same paragraph now be deleted from page 16.

In the present Amendment, Applicant has requested that the paragraph appearing at page 18, lines 13-25, be corrected to replace reference numeral 303 with reference numeral 203. It is believed that this change obviates the objections relating to the use of reference numeral 303. Withdrawal of that objection is respectfully requested.

The Office Action also objected to the drawings under 37 C.F.R. §1.83(a) because the drawings allegedly do not show the “cage” recited in the claims. The Office Action also rejected claims 1-6, 8-12, 14-18, 27, 29 and 30 under 35 U.S.C. §112, first paragraph, because these claims are allegedly not supported by the originally filed disclosure. Specifically, because the “cage” recited in these claims is not disclosed in the application. Further, the Office Action rejected claim 30 under 35 U.S.C. §112, second paragraph because of the recitation of a “movable cage.”

The “cage” referred to in the claims is described on page 14 of the originally filed application. The cage is basically just a rigid curved member that is attached to one side of a flexible diaphragm to prevent the diaphragm from being deformed due to a localized application of pressure to the diaphragm. The “cage” spreads to application of a force over the surface of the diaphragm to help prevent localized deformation of the diaphragm.

The cage discussed on page 14 of the originally filed application was supposed to be identified with reference number 9. However, due to a drawing error, the lead lines for reference numbers 8 and 9 appeared incorrectly. In Figure 3, the lead line for reference number 8 should have pointed to the curved line that extends all the way to the corners of the associated housing, which is the line representing the diaphragm. The lead line for reference number 9 should have pointed to the curved line to the right of the diaphragm, which is positioned between the diaphragm and the plunger 10.

Enclosed herewith is a corrected version of Figure 3 which shows the lead lines for reference numbers 8 and 9 pointing to the correct elements of this embodiment. Because the description provided in the original specification made the function of the various elements clear, it is respectfully submitted that the correction to Figure 3 does not add any new matter. Also, Applicant notes that other drawing figures and other portions of the specification consistently use reference number 8 to refer to a flexible diaphragm. For instance, a flexible diaphragm labeled with reference number 8 also appears in Figures 4A and 4B. This provide further evidence that the changes to the lead lines in Figure 3 does not introduce any new matter into the application.

The “cage” language was discussed with the Examiner during the July 16, 2009 personal interview. During the personal interview, it was agreed that it would be more appropriate to refer to the element identified with reference number 9 in corrected Figure 3 as a “curved and rigid member,” rather than as a “cage.” For this reason, Applicant has made corrections to the text of the specification appearing on page 14, lines 10-27. The corrected language now refers to the element as a “curved and rigid member.” Corresponding changes are also made to claims 1 and 30, to replace the “cage” language with language referring to a “substantially rigid and curved member.”

It is respectfully submitted that because the substantially rigid and curved member was depicted in original Figure 3, and because its function was discussed in the originally filed application, the changes to the specification and claims also do not add any new

matter. Entry of the changes and withdrawal objections and rejections under §112 are respected.

II. Claims 1-6, 8-12, 18 and 27

The Office Action rejects claims 1-6, 8-12, 18 and 27 under 35 U.S.C. §102(b) over Chen (U.S. Patent No. 4,945,944). The rejection is respectfully traversed.

As discussed with the Examiner during the personal interview, Chen lacks a substantially rigid and curved member which is mounted on a diaphragm and which is adapted to prevent a backpressure from creating a localized distortion of the diaphragm. Because claim 1 recites these features, it is respectfully submitted that claim 1 is allowable over Chen. Claims 2-6, 8-12, 18 and 27 depend from claim 1 and are allowable for at least the same reasons, and for the additional features which they recite. Accordingly, withdrawal of the rejection is respectfully requested.

III. Claims 14 and 15

Claims 14 and 15 were rejected under 35 U.S.C. §103(a) over Chen, in view of Hostetler (U.S. Patent No. 4,344,456). The rejection is respectfully traversed.

Claims 14 and 15 depend from claim 1. As noted above, Chen lacks all of the features recited in claim 1. Hostetler fails to cure those deficiencies of Chen. Accordingly, it is respectfully submitted that claims 14 and 15 are allowable over Chen

and Hostetler for all the reasons discussed above, and for the additional features which they recite. Withdrawal of the rejection is respectfully requested.

IV. Claims 16 and 17

The Office Action rejects claims 16 and 17 under 35 U.S.C. §103(a) over Chen, in view of Tanikawa (U.S. Patent Publication No. 2002/0124880). The rejection is respectfully traversed.

Claims 16 and 17 also depend from independent claim 1. As noted above, Chen fails to disclose or suggest all the features of claim 1. Tanikawa fails to cure those deficiencies of Chen. Accordingly, it is respectfully submitted that claims 16 and 17 are allowable over Chen and Tanikawa for all the reasons discussed above, and for the additional features which they recite. Withdrawal of the rejection is respectfully requested.

V. Conclusion

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that additional changes are required to place the application in condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

Respectfully submitted,

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